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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,049	11/13/2003	John J. Duigenan	GB920030046US1	3180

35525 7590 11/27/2007		EXAMINER
IBM CORP (YA)		PHAN, TUANKHANH D
C/O YEE & ASSOCIATES PC		
P.O. BOX 802333	ART UNIT	PAPER NUMBER
DALLAS, TX 75380	2153	

MAIL DATE	DELIVERY MODE
11/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/714,049	DUIGENAN ET AL.
	Examiner	Art Unit	
	TuanKhanh Phan	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *21 August 2007*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-33* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment, filed on 8/21/2007, has been entered and acknowledged by the

Examiner. Claim 1-33 are pending in the instant application.

Response to Arguments

Applicant's arguments with respect to claims 1-33 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and
distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 1, the language of the claim is awkward. There are a subscriber

and another subscriber, and there is the subscriber, thus claim 1 recites the limitation

"the subscriber" in line 11. There is insufficient antecedent basis for this limitation in the

claim. For examination on the merits, the claim will be interpreter as best understood by

the Examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a
foreign country or in public use or on sale in this country, more than one year
prior to the date of application for patent in the United States.

Claims 1, 17 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by

Rosenberg et al. (US Pat. 6,937,597), hereinafter referred as Rosenberg.

Regarding claims 1, 17 and 33, Rosenberg teaches a multicast publish/subscribe

messaging system comprising a broker and a plurality of subscribers (i.e. a server and a

plurality of clients, abstract), the system comprising:

a subscriber of the plurality of subscribers (i.e. a client of plurality of

clients, col. 17, lines 39-49) including a liveness indicator for indicating liveness

to the broker (i.e. **liveness indicator is an advertisement of active status or**

invitation when sending the request to the server, col. 17, lines 39-46), the

liveness indicator comprising:

setting a timer (i.e. **random period time T**, col. 17, lines 60-62),

responsive to the subscriber seeing a first indication of liveness (i.e. **the first**

indication of active status when sending the request to the server), for

setting a timer (i.e. time T, col. 17, lines 60-62);

canceling means (i.e. cancel its own before time T expires, col. 17, lines

60-65), responsive to the subscriber seeing a second indication of liveness from

another subscriber of the plurality of subscribers prior to expiry of the timer (i.e.

receiving response from another [second], cancel its own before time T

expires, col. 17, lines 60-65), for canceling the timer (i.e. **to cancel the**

response to the request included response time, col. 17, lines 60-67); and

sending means responsive to expiry of the timer, for the subscriber to

send a third indication of liveness to the broker (i.e. **after the amount of time T**

expired, server acknowledges the active status of the client which is the

third indication of liveness, col. 17, lines 60-63

Regarding claims 2 and 18, Rosenberg teaches the system of claims 1 and 17,

wherein the first sending means comprises: means for multicasting a claim that the

subscriber proposes to send an indication of the subscriber's presence to the broker

(i.e. client sends to the server as a multicast message, col. 17, lines 40-55); and means

for sending a presence indication to the broker (sending a message to the server, col.

17, lines 52-55).

Regarding claims 3 and 19, Rosenberg teaches the system of claims 2 and 18,

wherein the canceling means first indication of liveness is a claim sent to the broker

(cancels its own response, col. 17, lines 60-67).

Regarding claims 4 and 20, Rosenberg teaches the system of claims 1 and 17,

wherein the canceling means for comprises: means for determining at least one of: i) if

a desired number of subscribers of the plurality of subscribers have indicated liveness

(i.e. **if more than one responses, it only consider the first one,** col. 17, lines 65-67 –

col. 18, lines 1-5) and ii) that the broker is aware of the presence of at least one

subscriber (i.e. the server knows at least there is one, col. 65-67); and

means, responsive to determining that at least one of a desired number of

subscribers of the plurality of subscribers have indicated liveness and that the broker is

aware of the presence of at least one subscriber, for canceling the timer (i.e. **to cancel**

the response to the request included response time, col. 17, lines 60-67).

Regarding claims 5 and 21, Rosenberg teaches the system of claims 4 and 20, further comprising: means for receiving and storing a max value, wherein the max value is representative of the desired number of subscribers (i.e. **small or large group alike with state storage and complexity,** col. 17, line 39; col. 18, lines 34-39).

Regarding claims 6 and 22, Rosenberg teaches the system of claims 1 and 17, wherein an active connection is maintained between the broker and the subscriber in the multicast publish/subscribe messaging system (col. 4, lines 55-67); the subscriber further comprising: means for using the active connection to send an indication of the subscriber's presence to the broker (i.e. **indication of active invitation and status by the client to the server,** col. 17, lines 45-50).

Regarding claims 7 and 23, Rosenberg teaches the system of claims 6 and 22, wherein the active connection is a TCP connection (col. 4, line 3).

Regarding claims 8 and 24, Rosenberg teaches the subscriber system of claims 1 and 17, wherein at least one of the first indication of liveness, the second indication of liveness and the third indication of liveness is piggybacked onto another message (i.e. **each request or response may contain one or more header fields which modify or more uniquely link the message is a form of piggybacked onto another message or another header,** abstract).

Regarding claims 9 and 25, Rosenberg teaches the system of claims 1 and 17, wherein at least one of the first indication of liveness, the second indication of liveness and the third indication of liveness is sent over one of: a UDP connection (col. 4, line 3); and a TCP connection (col. 4, line 3).

Regarding claims 10 and 26, Rosenberg teaches the system of claims 1 and 17, further comprising: receiving means for receiving an indication from the broker that the broker is aware of the presence of at least one subscriber of the plurality of subscribers (col. 17, lines 65-67 – col. 18, lines 1-5).

Regarding claims 16 and 32, Rosenberg teaches the system of claim 1, wherein the broker comprises comprising: means for listening in on a multicast channel, used by the plurality of subscribers, for receiving indications of liveness from any of said plurality of subscribers (col. 17, lines 60-67).

Regarding claim 26, Rosenberg teaches the method of claim 17, comprising: receiving an indication from the broker that the broker is aware of the presence of at least one subscriber of the plurality of subscribers (col. 17, lines 39-62).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11-15 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg, and further in view of Kumar (US Pat. 6,269,080).

Regarding claim 11, Rosenberg teaches the system of claim 1, wherein the broker is operable to maintain at least one active connection between the broker and at least one subscriber of the plurality of subscribers (col. 17, lines 60-67), but lacks means for determining which subscribers of the plurality of subscribers have an active connection to the broker (col. 17, lines 43-45); Rosenberg teaches the means for informing subscribers of the plurality of subscribers that have an active connection to the broker set their timer (i.e. **advertising their status and send message periodically**, col. 17, lines 43-45). However, in the same field of endeavor, Kumar discloses the means for determining which subscribers of the plurality of subscribers have an active connection to the broker (Figure 6; col. 8, lines 20-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made would have the teachings of determining a particular of subscriber(s) of Kumar to incorporate into the teaching of indication of liveness taught by Rosenberg to effectively distribute data from a sender to a receiver(s) without having jam up the network traffic.

Regarding claims 12 and 28, they are rejected for the same reasons as discussed in claim 11 above, see Kumar Figure 6.

Regarding claim 13, Kumar further discloses claim 11, the broker comprising: means for designating as a primary subscriber a first subscriber of the plurality of subscribers to register interest in a topic (i.e. selecting one as the suitable receiver in the network to receive the connection, abstract); and means for maintaining an active connection to the primary subscriber (abstract).

Regarding claim 14, Rosenberg further discloses the system of claim 13, comprising: means, responsive to a failure of the primary subscriber, for designating a subscriber of the plurality of subscribers whose indication of liveness is next received as a new primary subscriber (i.e. the process of connecting to an active receiver continues, abstract).

Regarding claim 15, Rosenberg further teaches the system of claim 13 comprising: means for informing at least the primary subscriber that the primary subscriber is responsible for periodically indicating liveness to the broker (col. 17, lines 43-45)

Regarding claim 27, they are rejected for the same reasons as discussed in claim 11 above, see Kumar Figure 6.

Regarding claim 29-30, see discussion of claims 1, 13 and 27 above

Regarding claim 31, see discussion of claim 15 above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rosenberg et al. (US Pat. 6,937,597). Rosenberg et al disclose signaling method for Internet telephony.

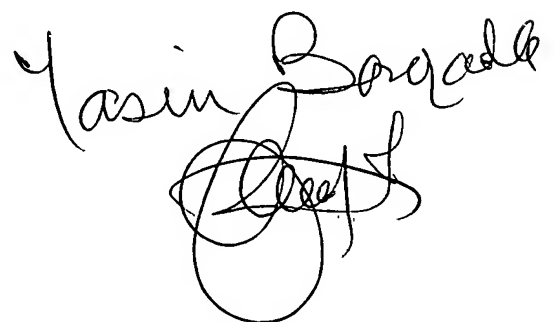Chesson (US Pat. 6,594,787). Chesson discloses input/output managed timer process.

Vigue et al. (US Pat. 6,983,326). Vigue et al. disclose system and method for distributed function discovery in a peer-to-peer network environment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TuanKhanh Phan whose telephone number is 571-270-3047. The examiner can normally be reached on Mon to Fri, 8:00am to 4:30pm EST, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TKP